AN INTRODUCTORY GUIDE

TO

EVALUATING NUTRITION PROJECTS

A joint project of

Federal-Provincial Subcommittee on Nutrition

and

Nutrition Programs Unit
Health Promotion Directorate
Health and Welfare Canada

1982

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This Guide is dedicated to the community nutritionists who gave time and effort to undertake field testing so that others could learn by their experience.

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Federal-Provincial Subcommittee on Nutrition, 1981-1982

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Special thanks to Jim Turner for graphics

PREFACE

Purpose of the Guide

This Guide is designed for use by field nutritionists rather than for management or employee performance appraisers.

Every nutritionist evaluates! The intent of this Guide is to assist you in meeting the challenge of making your evaluation more objective. It will help anyone with a limited background in evaluation to plan and carry out a straightforward evaluation. Those who have more experience may find the references listed in the bibliography useful.

In 1976 a survey[1] was carried out with over 100 community nutritionists employed by health and social services departments across Canada. Results showed that little formal evaluation was being done and that evaluation was significantly related to whether or not two specific resources were available: (a) evaluation guidelines for nutrition programs and (b) services of a statistician. However, respondents indicated they approved of evaluation and wanted to be able to evaluate their own programs.

Need for Procedure Guide

The Federal-Provincial Subcommittee on Nutrition (FPSCN), in June 1979, gave evaluation high priority in federal-provincial areas of collaboration. As a result, it requested that Health and Welfare Canada coordinate and provide the necessary resources for the preparation of a procedure manual for evaluation of community projects. It also requested that the Guide be evaluated after use in the field for a year.

Field testing was carried out from February to December 1981 with community nutritionists working at the local level across the country. Revisions have been made to the Guide as necessary.

---

[1] *Bartlett, J.E. A Study of Evaluation of Community Nutrition Programs in Canada, unpublished master's thesis, University of Guelph, 1977.*

Format, Content

This Guide is planned in a step-by-step format, using charts and checklists to convey much of the essential information. There is limited detail on the theory of evaluation; the bibliography suggests references for further study.

It is assumed that users of this Guide have some knowledge and/or experience in project planning and implementation and some degree of competency in writing measurable objectives. However, references are given for those wishing to "refresh themselves" in these areas.

Using the Guide

This Guide should be used on an ongoing basis. Adding your comments, reactions and experiences will make it a practical and useful 'personal notebook'. Space for your comments is provided on each page and you may wish to change or add other pages.

INTRODUCTION

What is Evaluation?

What does evaluation mean to you? Does it mean:

- satisfaction because it provides feedback which helps you determine what a project is accomplishing and also suggests means of strengthening it?
- support for your requests for increased resources or changes in allocation of resources?
- substantiation of the value of your nutrition project?
- a contribution to the growing science of nutrition and its application?

Your feelings about project evaluation will depend to a great extent on your previous exposure and experience. Evaluation <u>can</u> be done, and after the first few encounters, it can be done efficiently, with less anxiety and better understanding of what it can or cannot accomplish.

Kinds of Evaluation

The definitions and perceptions of evaluation are many and varied. Most evaluators define evaluation as having two purposes:

a) to improve a project, that is, to determine how it can be upgraded or how much progress is made toward attaining its objectives;

b) to determine the effectiveness of a project, that is, to assess its overall value; to learn the consistency with which it produces certain outcomes.

The types of information collected are similar for both kinds but how that information is used differs. The first type could result in modification of the approach used, while the second could lead to discontinuation of the project.

Process of Evaluation

The evaluation involves:

collecting information,

applying standards and criteria,

drawing conclusions and forming judgments,

for the purpose of making DECISIONS.

Levels of Evaluation

Levels of evaluation range from relatively simple, casual observations to very complex scientific research.

In community action programs, decisions can and often must be made on the basis of an evaluation using very uncomplicated methodology. Table 1 compares the *characteristics of various levels of evaluation to help you clarify the level of your particular project.*

This Guide suggests that field-level nutritionists conduct evaluations up to level III as defined in Table 1. It is obvious then that you will be measuring achievement toward short- and possibly intermediate-term objectives, that is, change in nutrition knowledge, awareness, attitude and behavior.

The evaluation of long-term objectives, and their relationships to shorter-term objectives, would take more resources and time than are available to most field nutritionists in Canada. Why not leave this task to research and, assuming that relationships or links do exist, get on with the job of evaluating how well your short-term objectives are being met.

Application in the Field

For field workers whose main purpose is delivery of a service, evaluation must be practical, taking into consideration all the demands and limitations imposed by field work. It should provide relatively immediate feedback to assist in enlightened decision-making for the purpose of improving projects. Thus, this Guide leads you through a step-by-step process which will help you assess various factors which ultimately affect the success of your projects.

Table 1 COMPARISON OF CHARACTERISTICS OF VARIOUS LEVELS OF EVALUATION

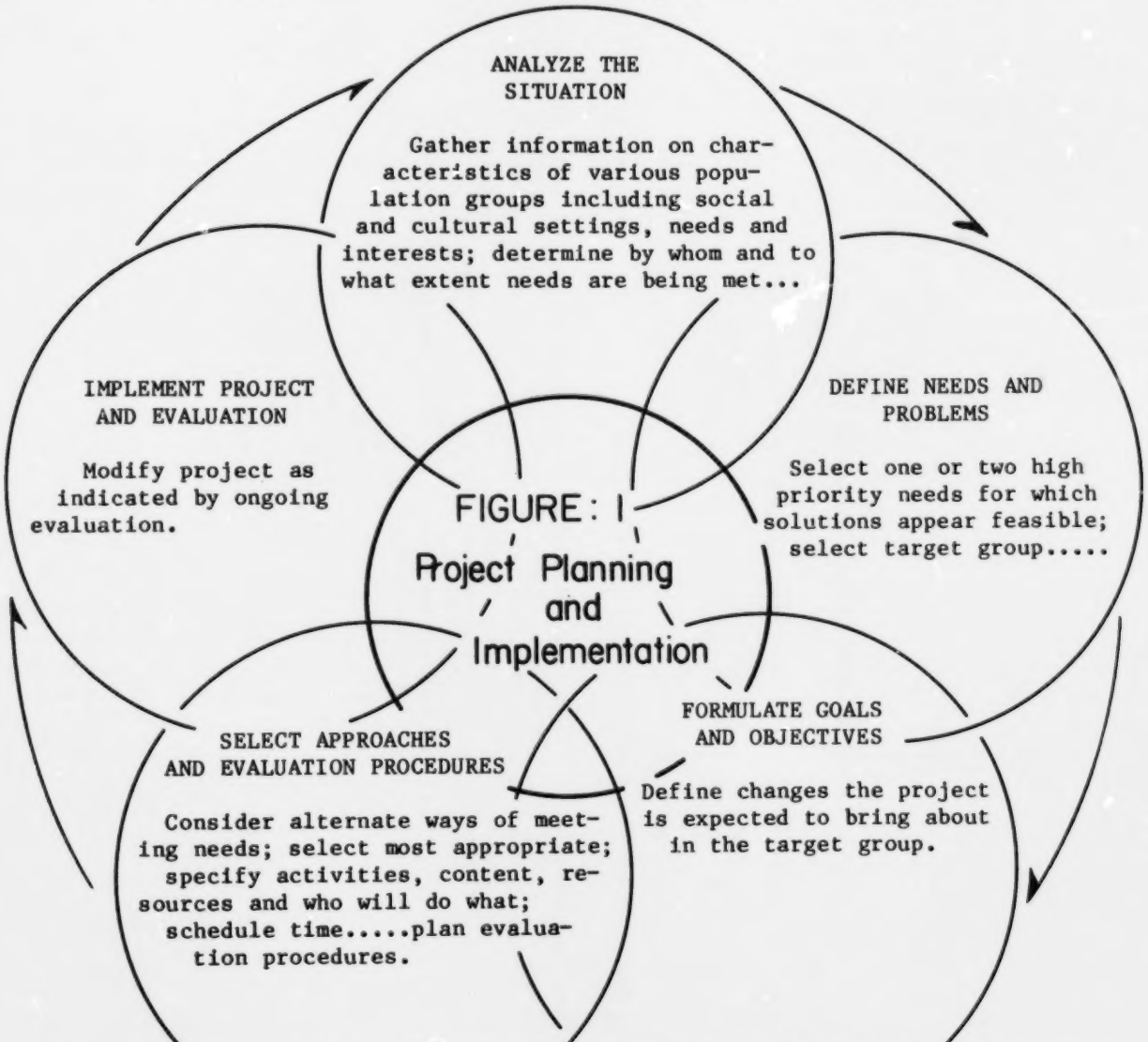
Characteristics \ Level of Evaluation	I Casual Observations	II "Self-checking" Evaluation	III "Do-It-Yourself" Evaluations	IV Field Studies	V Scientific Research
1. Type(s) of programs evaluated.	Applied to delivery/service programs by staff			Special projects, concentrated studies.	Ongoing research.
2. a) Use of scientific methodology, i.e. adherence to scientific principles.	Not consciously applied. First impressions, 'gut' reactions, intuition; subject to biases.	Conscious attempt to apply principles of evaluation, e.g. using short questionnaires at sessions, talking to others for judgment and drawing some conclusions.	More systematic planning and applications of principles of evaluation; not complex or involved. Usually involves surveys. Can be done easily with a little background in evaluation.	Greater attention to scientific principles; more involved and complex.	Very complex problems and techniques; long-term experimental studies to determine cause and relationships.
b) Type of evaluation design.	NA	NA	Before and after measures at least.	At least before and after measures with comparison group, probably control group.	More complex and rigorous designs.
3. a) Types of indicators used, i.e. what is measured.	Awareness, acceptance, satisfaction.	To a greater degree than I, awareness, acceptance and satisfaction.	As in II plus knowledge, attitude and/or behavior.	Knowledge, attitude and/or behavior; possible clinical status and/or biochemical status.	Knowledge, attitude and/or behavior; possible clinical and/or biochemical states; morbidity and/or mortality.
b) Information collection.	Casual personal observation.	Discussion, informal interviews; short, simple questionnaires.	Questionnaires and/or tests; food records, other records and/or reports; systematic	As in III; possible clinical and/or biochemical measurements.	As in IV but in greater depth.

c) Tabulation and analysis methods.	Non-written if any.	Manual; numerical counts, probably percentages.	Usually manual; numerical counts, percentages; possible means...	Probably computerized; statistical analysis.	Computerized; more complex statistical analysis.
4. a) Human resources					
- own	Minimal time and effort.	Little time and effort.	Moderate to more time and effort.	Varies	Varies
- other than self	None	Probably none other than minimal clerical assistance.	Few if any; may use minimal internal staff for planning, information collection and analysis.	Probably use internal and external human resources for planning, information collecting, analysis and reporting.	See IV. Majority or all human resources are other than self.
b) Material evaluation resources (finances, measuring instruments, equipment, other).	Probably none.	Simple information collection instrument.	Data collection instruments. Minimal additional costs, usually incorporated into annual budget.	Data collection instruments, possibly clinical and biochemical assessment tools and equipment; probably computer; temporary funding.	As IV, possible additional equipment for more sophisticated analyses. Medium or long-term funding.
5. Duration of evaluation.	On the spot, immediate.	Immediate up to a few days.	Can run up to a year.	May run several months to a few years.	Longest term; may run over a number of years.
6. Degree of nutritionist's responsibility for the evaluation.	Total	Total	Much	Some	Minimal or none.
7. Reporting.	None	May incorporate findings into existing reports, e.g. monthly, annual.	May have written report but usually for self. May incorporate findings into existing reports, e.g. monthly, annual. May report findings to colleagues.	Nutritionist may assist in writing a report for others. Often published in report form as well as in professional journals.	Nutritionist may be involved indirectly. See also IV.

PROJECT PLANNING AND IMPLEMENTATION

Project Planning and Implementation Process

Before any project can be evaluated, a clear and detailed description is required. This description will have evolved from the project planning process[1], an outline of which is presented in Figure 1.

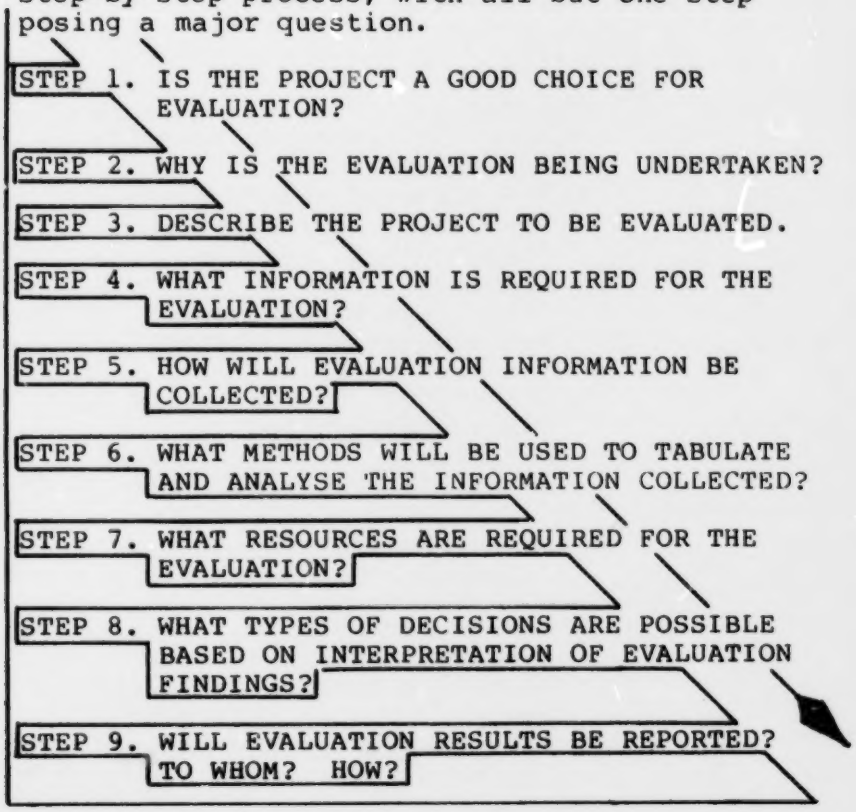

ANALYZE THE SITUATION
Gather information on characteristics of various population groups including social and cultural settings, needs and interests; determine by whom and to what extent needs are being met...
DEFINE NEEDS AND PROBLEMS
Select one or two high priority needs for which solutions appear feasible; select target group.....
FORMULATE GOALS AND OBJECTIVES
Define changes the project is expected to bring about in the target group.
SELECT APPROACHES AND EVALUATION PROCEDURES
Consider alternate ways of meeting needs; select most appropriate; specify activities, content, resources and who will do what; schedule time.....plan evaluation procedures.
IMPLEMENT PROJECT AND EVALUATION
Modify project as indicated by ongoing evaluation.
FIGURE: 1
Project Planning and Implementation

(1) *Two references which may assist you in planning nutrition projects and programs are: Frankle, R.T. and Owen, A.Y. Nutrition in the Community; Green, L.W. et al. Health Education Planning. (See bibliography)*

PLANNING AND CONDUCTING AN EVALUATION

When planning and conducting an evaluation, you have many questions to ask and decisions to make. To help ease and systematize the process, this Guide presents evaluation as a step-by-step process, with all but one step posing a major question.

Steps in Evaluation


STEP 1. IS THE PROJECT A GOOD CHOICE FOR EVALUATION?
STEP 2. WHY IS THE EVALUATION BEING UNDERTAKEN?
STEP 3. DESCRIBE THE PROJECT TO BE EVALUATED.
STEP 4. WHAT INFORMATION IS REQUIRED FOR THE EVALUATION?
STEP 5. HOW WILL EVALUATION INFORMATION BE COLLECTED?
STEP 6. WHAT METHODS WILL BE USED TO TABULATE AND ANALYSE THE INFORMATION COLLECTED?
STEP 7. WHAT RESOURCES ARE REQUIRED FOR THE EVALUATION?
STEP 8. WHAT TYPES OF DECISIONS ARE POSSIBLE BASED ON INTERPRETATION OF EVALUATION FINDINGS?
STEP 9. WILL EVALUATION RESULTS BE REPORTED? TO WHOM? HOW?

As you progress through the Guide, it will become obvious that these steps are inter-related and that at any one time more than one of the questions may be under consideration.

Retaining this Guide in a looseleaf form will make it easier to put these steps in different order to suit <u>your</u> needs and <u>your</u> way of thinking.

An Evaluation Plan

A standard format for recording your evaluation plans will save time and help in organizing the evaluation. One model is offered in Appendix A; it provides for information to be recorded under the following headings:

PROJECT:

- *Why Project is Being Evaluated.*
- *Type(s) of Decisions Possible as a Result of Evaluation.*
- *Description of the Project:*
  - *Purpose or Overall Project Goal*
  - *Target Group*
  - *Location*
  - *Dates Over Which Project Runs*
  - *Baseline Information on Existing Situation-Needs*
  - *Objectives*
  - *Methods/Approaches*
  - *Contents*
  - *Materials, Other Resources.*
- *Description of the Evaluation:*
  - *Indicators for Measuring Achievement of Objectives*
  - *Source and Data Collection Methods*
  - *Sampling Method and Size*
  - *When Will Data be Collected*
  - *Who Will Collect the Data*
  - *Data Tabulation and Analysis Methods*
  - *Evaluation Resources Required.*
- *What are Some Possible Unplanned Project Effects (positive and negative)?*
- *List Non-project Factors Which Might Affect Outcomes of this Project.*
- *Planned Distribution of Evaluation Report.*

This plan may be modified in any way that makes it more useful to you.

The above outine has been translated into a plan format and appears as a:

a) condensed form on the following page (which can be opened for easy reference as you proceed through the Guide);
b) working form in Appendix A;
c) sample plan in Appendix B.

FIGURE 2

AN EVALUATION PLAN - OVERVIEW FORM

PROJECT: _____	PROJECT DESCRIPTION STEP 3 (Cont'd)		STEP 4		E
	Project Objectives	Project Methods/ Approaches	Indicators for Measuring Achievement of Objectives	Project Source and Data Collection Methods	Sampling Meth And Sample Si (if relevant
STEPS 2,8 — Why This Project is Being Evaluated:					
Decision(s) Possible as Result of Evaluation of This Project:					
STEP 3 — DESCRIPTION OF THIS PROJECT:					
. Purpose or Overall Goal of Project:					
. Target Group:					
. Location:					
. Dates Project Runs: from _____ to _____					
. Content					
. Materials/other resources:					
Baseline Information on Existing Situation - Needs					

LUATION DESCRIPTION

	STEP 5		STEP 6	STEP 7
	When will Data Be Collected?	Who will Collect the Data?	Data Tabulation and Analysis Methods	Evaluation Resources Required Time

STEP 4 → What are some possible unplanned PROJECT EFFECTS? (Positive and Negative)

STEP 4 → List NON-PROJECT FACTORS which Might Affect Outcome of This Project:

STEP 9 → Planned DISTRIBUTION of EVALUATION REPORT:

Planner of Evaluation_____

Date:_____

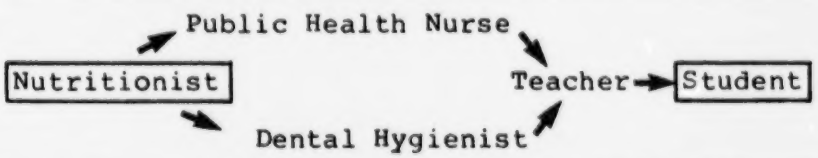
STEP 1: IS THE PROJECT A GOOD CHOICE FOR EVALUATION?

It is important that your first experiences with evaluation be positive; thus, initially, you will probably want to select a project that is relatively easy to evaluate. A 'yes' answer to the majority of the following questions indicates that the project is probably a good choice for your initial venture in evaluation.

Questions to Ask

1. *Do you deliver the project to the target group about whom change is being measured?*

In the following example, the ultimate target group is students, but nutrition information is transmitted to them by other professionals.



Realistically you can be expected to evaluate only that part of the total program for which you have responsibility and over which you have control. If you provide nutrition consultant services to the Public Health Nurse and Dental Hygienist, it is reasonable that you evaluate changes in their knowledge, attitudes and behavior (including use of the information provided), but many factors beyond your control influence what reaches the student[1] and how the student is affected.

2. *Do you invest considerable time and effort in the project?*

3. *Is the project a recurring one?*

4. *Is the project well defined?*

5. *Is it a relatively short-term project, one that can be evaluated within a reasonable period of time?*

[1] However, this does not preclude your involvement in a team effort to evaluate impact on the teacher and/or student.

Example: Nutrition Week, a series of adult nutrition and fitness classes, a radio series.....

6. *In the problem area the project aims to alleviate, is the amount of potential improvement substantial enough to be measured easily?*

7. *Are project objectives limited to a manageable number?*

8. *Are project objectives clearly defined and measureable? If not, can such objectives be developed?*

9. *Are participants readily accessible to enable easy collection of information?*

10. *Do participants appear receptive to evaluation?* Are they likely to cooperate in providing information as required for the evaluation?

11. *Will it be possible to utilize evaluation findings to make decisions about the project?*

12. *Do you yourself feel relatively comfortable with the project and about evaluating it?*

However, as you develop evaluation skills, you will want to tackle more difficult problems. Although this Guide has been written at a basic level, the information and ideas presented should assist you in planning and conducting such evaluations.

STEP 2: WHY IS THE EVALUATION BEING UNDERTAKEN?

The question "Why is the evaluation being undertaken?" can be one of the most difficult questions to answer. However, it is important that you clearly define in your own mind why you are undertaking the evaluation. This in turn will determine what kinds of decisions you make on the basis of the evaluation findings. You may decide that the project is not worth evaluating after all and thus save yourself much time, effort and frustration.

Reasons for Evaluating

There are a number of reasons why you may decide to evaluate a project. Most of these can be classified into two major categories:

1. reasons related to *improving* the project,

2. reasons related to justifying the project, i.e. proving its *effectiveness* and worth.

These two categories can be broken down further:

1. To improve the project:

   a) to determine the most appropriate and/or most effective method of meeting needs;

   b) to determine the adequacy of use of resources;

   c) other:

2. To prove the worth and effectiveness of the project:

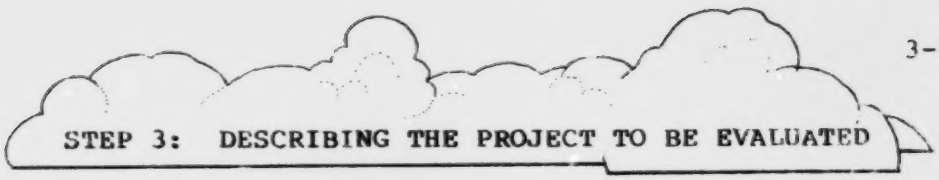
   a) to justify continuance or expansion of a project;

   b) to justify curtailment or elimination of a project;

c) to justify a request for increased resources;

d) other:

The level of evaluation discussed in this Guide will assist you mainly in improving a project, although some of the information may also provide evidence on the worth and effectiveness of a project.



STEP 3: DESCRIBING THE PROJECT TO BE EVALUATED

You probably have your own format for writing project plans. If not, you may wish to develop one cooperatively with other nutritionists and/or a program planner.

A project plan provides details on:

- the target population
- the context in which the project will operate
- specific strategies and activities
- who will do what
- project content
- resources to be utilized
- time frame for the project

and, of course,

- project objectives

Well-defined Objectives: A Prerequisite to Evaluation

Evaluation can help you determine how well your objectives are being reached. Yet many people attempt to evaluate their projects or programs without a clear understanding of what they are trying to achieve. Objectives may not be clearly defined because:

- nutritionists are often under pressure to deliver a service and find it difficult to set aside time to define objectives;
- goals and objectives may have to satisfy many people with divergent ideas of what the project should accomplish; objectives become fuzzy in an attempt to satisfy all people (this can be partially resolved by developing general objectives for others, and further refining them for your own purposes);
- some nutritionists do not have well-developed objective-writing skills.

Since well-defined objectives are crucial to evaluation, some discussion of objectives follows. However, the information provided is not comprehensive. If you feel that your objective-writing skills need improvement, it is suggested that you review additional references on the topic[1].

Desirable Characteristics of Objectives

Objectives should be:

1. *Realistic and attainable.*

2. *Related to needs they are intended to meet.*

3. *Limited in number, no more than four.*

4. *Developed in cooperation with project participants.*

5. *Made known to, and acceptable to, participants as well as to the nutritionist.*

6. *In written form.*

7. *Measurable, that is, state:*

   a) *who (target group) will demonstrate...;*

   b) *what specific behavior (indicator)...;*

   c) *to what degree of achievement (standard)...;*

   d) *under what conditions or in what situations...;*

and e) *when behavior will be demonstrated.*

Objectives may state changes expected in:

- *awareness*
- *acceptance, satisfaction*
- *knowledge*

[1] *Among relevant references listed in the bibliography are:*

R. Mager, Preparing Instructional Objectives.
R. Mager, Goal Analysis.

- *attitude, opinions, beliefs*
- *behavior*
- *physiological parameters.*

Achievement in all these areas can be demonstrated to a greater or lesser extent by observable behavior. Step 5, which starts on page 5-1, discusses a number of methods for collecting information to measure achievement of objectives.

The time frame of objectives may be:

- short-term or immediate
- intermediate
- long-term or ultimate.

You must define for your own purposes, what is meant by each of these terms. For example, short-term objectives could be those measured during and/or at the end of the project; intermediate objectives, 2 to 12 months after completion of the project, long-term, one year or later.

Given the nature of the project and resources available to you, the nutritionist, it may be feasible for you to measure short-term objectives, and perhaps intermediate objectives. Additional expertise and other resources are usually required to measure achievement of long-term objectives.

Examples

Some examples of measurable objectives follow:

Type of Change	Objective
Knowledge	X% of day care leaders participating in the workshop, when presented with...sample foods, will correctly classify at least...into the four food groups of Canada's Food Guide.
Knowledge, application of	At the end of a workshop, X% of participants will be able to modify a day's food intake to meet Canada's Food Guide.
Attitude	As a result of the workshop, a) at least X% of participants will request further workshops on more specific nutrition topics; b) at least X% will request additional assistance through other means such as providing nutrition materials, including newsletters, sessions with children, etc.
Behavior	Two months following the workshop, X out of Y day care centres will be providing meals that comply with Canada's Food Guide. This objective can be further refined to include aspects such as: meals contain no more than 35% of calories from fat; meals contain at least one whole grain every two meals.

Check these objectives against the criteria previously listed. Should any be revised? You may wish to add other examples of measurable objectives that you have developed for your own projects and assess them against the given criteria.

STEP 4: WHAT INFORMATION IS REQUIRED FOR THE EVALUATION?

A wide variety of information is necessary for an evaluation in which you can be relatively confident. This Guide recommends that you collect and record the following three major categories of information:

1. *description of the project:*

   a) as planned,
   b) as delivered;

2. *information on non-project factors which may influence the outcome of the project;*

3. *actual effects of the project:*

   a) planned effects, i.e. achievement of objectives;
   b) unplanned effects, both negative and positive.

Project Planning

Figure 1 illustrates "Project Planning and Implementation" and lists kinds of information a project plan might include. However, as every practitioner is aware, conditions and people change, and ongoing evaluation of the project in progress often indicates a need for project modification; for example, in the approach used, resources invested... Such modifications may be crucial to the effectiveness of a project and therefore must be considered in the overall evaluation. A continuing record of the project as it is being delivered should be kept, so that you do not have to try to recall these details at a later date.

Non-project Factors

Obviously, many project-related factors can affect the outcome of the project. The record of the project as delivered will provide information on these. However, other factors not related to the project can also influence the outcome. For example:

- changing priorities of the target group, conflicting events, "epidemics" or other more urgent demands;

- opposing or supporting nutrition/health related programs;
- external environment - very good or very bad weather;
- internal environment - physical facilities...
- others (from your own experience):

It can be just as important to consider non-project factors, as well as project factors, when evaluating the outcome of a project and trying to determine possible causes and effects.

Project Effects

There are two types of project effects on which information should be obtained: planned effects or achievement of objectives, and unplanned effects. Both must be taken into consideration when making a judgment about the value of a project.

Planned Effects

First, let's look at measuring planned effects, i.e., achievement of project objectives. As previously mentioned, it is extremely difficult to determine if objectives have been met unless they have been clearly defined in measurable terms.

After objectives have been developed, ask yourself what evidence will indicate that objectives have been met. For example, percentage of individuals at desirable body weight, vegetables sales in grocery stores, types of foods available in school cafeteria/canteens...

A few examples of nutrition-relevant indicators are included in Table 2. Sample objectives and examples of tools for collecting information on the achievement of the objectives are included. This table also demonstrates the relationship between objectives, information collection tools and indicators.

TABLE 2. NEEDS, INDICATORS, OBJECTIVES AND DATA COLLECTION TOOLS

Sample Needs/Problems(1)	Sample Objectives(2)	Some Possible Indicators of Achievement of Objectives	Some types of Data(3) Collection Tools
A. Little nutrition is taught in elementary schools:			
1. Teachers state they do not feel equipped to teach nutrition.			
. Appear to lack adequate knowledge of nutrition.	. X% of participating teachers will correctly answer at least Y% of questions on a knowledge test.	. Short term: Teachers' nutrition knowledge	. Test - written - oral - "games"
. Appear unsure how to teach/make nutrition interesting.	. Within 2 months of the first in-service, P% of teachers who participated will have used 2 or more activity ideas; another Q% will have definite plans to do so.	. Short to intermediate term: Use of a variety of nutrition education techniques.	. Interview and/or Questionnaire and/or Records (lesson plans)
2. Nutrition education is not a component of the curriculum.	. Policy makers will make a commitment to incorporate nutrition education into the curriculum. . Nutrition education will be incorporated into the elementary school curriculum within X years of start of the project.	. Long term: Nutrition education as component of curriculum.	2. Interviews . Document (the curriculum).

(1) A comprehensive needs assessment would include many more elements than those listed here.

(2) The type of change expected and the standard of achievement set for an objective will of course depend on the intensity of the project - the kinds and number of approaches used, input of resources such as time, personnel, budget, etc. For example, under Sample A, it would be unrealistic to expect achievement of the second objective through a single approach such as a workshop. More likely you would provide support and encouragement through additional methods such as personal contact, provision of resource materials such as newsletters and possibly teaching aids... You may also decide that it is necessary to ensure that administrative support exists through personal contact with administrators.

(3) Refer to Table 3, page 5-2, for a comparison of the advantages and limitations of each method. Choose those best suited to your situation.

TABLE 2. (Cont'd) **NEEDS, INDICATORS, OBJECTIVES AND DATA COLLECTION TOOLS**

Sample Needs/Problems	Sample Objectives	Some Possible Indicators of Achievement of Objectives	Some types of Data Collection Tools
B. <u>Prenatal knowledge of community nurses varies</u>:			
1. A number of community nurses who counsel prenatals express difficulty in teaching nutrition; they feel the topic is boring.	. Over a period of a year, Y% of nurses will express an interest in providing nutrition counselling to prenatals.	. Public health nurses' attitude toward teaching prenatal nutrition.	. Interviews: individual, group and/or questionnaires.
2. Nutrition information provided to prenatals by nurses varies in accuracy and amount. There is no standardized core of information	. Nurses will be able to use a variety of techniques in counselling prenatals individually and in groups.	. Knowledge and use of a variety of techniques for individual and group teaching of prenatal nutrition.	Tests, case studies and role-playing.
	. Nurses will be able to modify one-day food plans for a pregnant teenage and pregnant adult female taking into consideration nutritional requirements and factors affecting food choices.	. Knowledge and application of knowledge of nutritional requirements of pregnancy. . Acceptance of standardized core of information.	. Tests: studies, role-playing...
	. Nursing division will agree to the development and use of a standardized core of nutrition information for prenatals, and accept this core within X months of its development.		. Interviews: with policy makers
	. Within one year of its acceptance by nursing division, X% of nurses will be using the core information in counselling prenatals.	. Use of standardized core of information.	. Interviews: reported behaviour and/or observation.

USING THE ABOVE TWO EXAMPLES AS A GUIDE DEVELOP A THIRD EXAMPLE BASED ON YOUR OWN SITUATION

As you continue to plan, implement and evaluate projects, you may wish to start your own list of indicators and insert the list in this Guide for easy reference.

Unplanned Effects

Any decision or action you take can have effects other than those you planned or anticipated. Some effects can be positive, with project outcome surpassing expectations. Other effects may be negative and can outweigh the project's benefits.

Assume you are planning a school cafeteria project in which one objective is to increase vegetable consumption by students. (This project is discussed in more detail on page 5-6). Although the planned objective is to increase vegetable consumption, there are a number of potential unplanned effects:

(a) Positive
- increased home growing of vegetables,
- increased consumption of vegetables by other family members,
- replacement of 'undesirable' foods by vegetables.

(b) Negative
- displacement of another food group such as Breads and Cereals to an undesirable degree,
- increase in staff workload (due to, for example, lack of vegetable peeling equipment) resulting in much dissatisfaction.

Additional positive outcomes are welcomed, and since negative outcomes are undesirable, it is important to anticipate as many as you can before the fact, and take action to prevent them. Careful planning, recall of past experience, and ongoing evaluation and modification of the project in progress are a few useful methods.

However, no matter how carefully and thoroughly you plan and consider the possibilities, unplanned and unanticipated results can occur. All outcomes require consideration in the evaluation process.

Record Keeping

Much of the information needed to conduct an evaluation has been outlined. Considering the number of projects in which you as a nutritionist are likely to be involved and your numerous other responsibilities, a good record keeping system is essential.

The rewards of keeping complete records are varied:

1. Records assist you in accurately recalling information which you need to make decisions about the project and thus about your overall program.

2. Records provide documentation to support discussion of a project with other nutritionists, program participants, the public and with administrators.

3. Well-kept records are essential to the reporting of evaluation results.

4. Mobility in the nutrition profession can be high; records provide valuable information for future incumbents.

There are a number of record-keeping methods. Two examples are:

1. Keeping a journal or notebook and later categorizing information thus recorded,

2. Establishing an information processing system whereby information is categorized as it is obtained.

In developing a records system which works for you, you will find it helpful to consult with experts in information-keeping systems as well as with other nutritionists.

STEP 5: HOW WILL EVALUATION INFORMATION BE COLLECTED?

Information Collection Methods

There are many methods for collecting the evaluation information outlined in Step 4. *Your written project plan* provides part of the information need for the *project description*. The remainder is supplied by your *record* of the project as delivered.

Information on non-project variables which may influence project results can be obtained, for example, by *observation* and recording these observations. In some instances, *questioning* or *interviewing* participants and/or other involved professionals will provide useful information.

You can measure achievement of project objectives by a number of methods. The two usually considered first are the *questionnaire* and the *interview*. In some cases it is necessary to utilize these methods, but it should be remembered that they can take a great deal of time to prepare, to administer, and to analyze. Another important consideration is that project participants may resist such methods, either because their self-confidence is threatened or they have been 'questionnaired to death'.

Table 3 compares a number of information collection methods[1]. The scale used is a judgmental one and because of its nature is not precise. Based on your experience, your judgment may differ. To further clarify the advantages and limitations of each method you may find it helpful to record directly in the Guide your experiences as you experiment with different methods in different situations.

[1] *Most research methods texts discuss the strengths and weaknesses of these methods in greater depth and provide ideas on how to protect objectivity and reliability. On such text is F.N. Kerlinger, Foundations of Behavioral Research.*

Table 3 **COMPARISON OF SOME INFORMATION COLLECTION METHODS**

METHOD	EXAMPLES	EASE/DIFFICULTY OF DESIGNING INSTRUMENT	DEPTH OF INFORMATION OBTAINABLE	DEGREE OF FLEXIBILITY IN ITS USE	EASE/DIFFICULTY OF QUANTIFYING INFORMATION	TIME REQUIRED TO ADMINISTER	EFFECTS ON PARTICIPANTS	OTHER COMMENTS
Records and documents	Program/ project records, agency and institutional records, government statistics	Easy	Varies	Least	Easy	Varies: depends on complexity of records	Least	Records may be incomplete, inaccurate, out-of-date, can save money and time
Systematic observations	Checklists, forced choice scales, numerical scales	Varies: depends on how systematic	Much: cannot deny behavior	Varies	Varies: systematic tabulation easy, narrative record difficult	Much	Outside observers may be seen as intruders or evaluators	If programmer observes, information may be missed, open to bias
Ratings by peers, staff, experts	Expert judgments, opinions of peers, family, formats same as observations	Easy/ moderate	Less: depends on length and content	Less	Moderate	Less	Less	Open to bias
Individual interviews	Face-to-face, telephone	Moderate	Much/most	Most	Difficult	Much	Can build trust, may change people's views	Open to bias
Group interviews	Face-to-face	Moderate	Much	Much	Difficult	Moderate	Strong on group building	Difficult to maintain focus

Questionnaires	Face to face, mail...	Difficult: preparation takes time	Less: depends on length and flexibility	Less	Easy	Least	Less trust building, may change people's views	More objective
Tests of information, interpretation, skills, application of knowledge	Written, oral, performance (e.g. games)	Easy/moderate	Varies: depends on length	Less	Easy	Least	May be threatening	More objective
Situational tests presenting respondents with simulated life situations	Case studies, skits, role-playing...	Easy	Varies	Most	Varies: easy to difficult	Less	Ranges from fun to threatening	
Diaries and records	Food records, meal/snacks served, grocery lists, physical activity lists	Easy	Varies	Less	Easy	Less	May change people's behavior	May be incomplete
Clinical evidence	Anthropometric and other physical measurements	Moderate	Less	Less	Easy	Much		Requires trained professional staff, much co-operation, expensive
Biochemical evidence	Biochemical tests	Moderate	Much	Less	Easy	Most		Requires trained professional staff, much cooperation, very expensive

Selecting Methods

To assist you in selecting the information collection methods that best suit your evaluation needs, a number of questions follow. Although a few are most relevant to educational projects, the majority have a broader application.

1. Are the methods appropriate for:

   (a) the objectives of the project?
   (b) the type of subject matter being conveyed?
   (c) the group about whom change is being measured?
   (d) the intended uses of evaluation results?

2. Does each method selected measure the information it is said to measure?

3. Has the effect of the method on the target group's motivation and achievement been considered?

4. Are directions for administering a method and/or completing any instrument clear and reliable?

5. Is the scoring procedure for each instrument reliable, i.e. would several judges scoring the same responses arrive at similar scores?

6. Have methods, and instruments if applicable, been pretested to ensure they meet the above criteria?

7. Have a variety of methods been selected to offset the weaknesses of each one and to ensure that any judgment made is a fair one?

8. Has the target group been involved in selecting the methods to be used?

Objectivity

Any evaluation technique or data collection method used should be as objective as possible. It is important to take more care in the development and administration of some methods than in others to ensure objectivity, for example observation, ratings and interviews, as these are more prone to individual biases.

In developing all data collection methods, it is important to follow certain procedures:

- define objectives clearly;
- determine what behaviors constitute achievement of an objective;
- develop a checklist or rating scale of behavior in as clear terms as possible;
- pretest the checklist or scale before using;
- observe and record in a systematic manner;
- then count the participants exhibiting specified behaviors, and rate the behaviors.

Example 1

For ongoing evaluation of a group session, you may want to obtain some indication of the participants' acceptance of, or attitude toward, information being presented. Behaviors such as the following could be used as indicators of their reactions. Measure and quantify these, using an observation checklist such as the one below, or develop another to suit your needs:

Some Possible Behaviors

(a) Participants ask questions/make comments[1] which indicate:	No. Questions	No. Participants
• acceptance of information	_____	_____
• disagreement with information	_____	_____
• question/comment inappropriate	_____	_____

[1]*Interpretation of these results could reveal that information presented was not clear and thus misunderstood, or was not appropriate or of interest to the group. Thus, changes can be made to increase acceptance.*

(b) Degree of participation[2]

- active participation _____
- disinterested or resisting _____

(c) Interest

- takes educational materials from display _____
- requests additional information _____
- requests additional 'sessions' _____

Example 2

One of the objectives of a comprehensive nutrition education program conducted in a school serving cafeteria meals is improvement of student meal selection. The degree of success of this program could be measured by several methods which complement each other, and at different points in time to determine progress toward the objectives:

(a) records: of foods sold over specified periods of time; note, however, that a choice of nutritious foods must actually have been available - menu records should provide this information.

(b) observation: observe and record student purchases using a rating scale. The specific content of such a scale would be determined by your objectives. The recording form could look like the following:

[2]*The difference between the subtotal of these two behaviors and total number of participants represents those probably interested, but some uncomfortable in participatory situation.*

STUDENTS Food Group(s) Omitted ( )							All Food Groups Included	Number of "Empty Calorie" Foods Selected	TABULATION				
No.	M	F	Milk & Milk Products	Fruits/ Vegetables	Breads /Cereals	Meat, Fish Poultry & Alt.			Number of Food Groups Omitted				
									1	2	3	4	
1													
2													
3													
.													
.													
x													
TOTALS													

It is important to define clearly objectives before deciding how and what to measure. In example 2, all the above information may <u>not</u> be necessary - if the objective, based on previously determined needs, was to increase vegetable consumption, only vegetable selection is the essential indicator. (You may decide to measure also plate vegetable wastage to obtain more accurate information on actual consumption). Note that tabulation is made easy by incorporation directly into the form. It is advisable to check the method selected and instrument developed against the questions posed on page 5-3 to ensure they are appropriate to the situation in which they are to be used.

You may decide to involve students and/or teachers in the observation and collection of required data and in the reporting of results. Early involvement of these groups in the assessment of needs and the planning of the evaluation can be a very effective educational technique to increase their motivation and achievement. This effect, if achieved, should be recognized as one of the influencing components of the program.

Guidelines for Developing Questions for Tests, Questionnaires

Numerous references exist on the development and use of data collection tools such as questionnaires, interviews and tests. Several have been included in the bibliography(1).

However, since these tools are often used in nutrition projects, a few hints are listed below:

1. Limit the number of questions asked or pieces of data collected; ask only what you need to know, not all you would like to know.

2. Each question/piece of information collected should relate directly to a project objective. It is a good idea to keep a record of which question/datum helps measure achievement of which objective.

3. When possible, develop questionnaires, rating scales, observation instruments, etc., so that minimum writing is required; use checklists, multiple choice responses, rating scales, etc. This simplifies completion by the respondent, as well as the tabulation and analysis of responses.

4. Use simple, easy-to-understand language, appropriate to the respondent.

5. Be direct, not vague. Ask specific questions.

6. Develop questions in a logical sequence.

7. *Pretest* the questionnaire or other instrument; this can be as simple as having two or three colleagues review it and trying it with a small number of the intended audience.

(1) . *Research methods texts such as Kerlinger, F.N. Foundations of Behavioral Research.*
. *Gordon, R.L. Interviewing: strategy, techniques, and tactics.*
. *Gronlund, N.E. Constructing Achievement Tests.*
. *Byrn, et al. Evaluation in Extension.*
. *Oppenheim, A.N. Questionnaire Design and Attitude Measurement.*

STEP 6: WHAT METHODS WILL BE USED TO TABULATE AND ANALYZE THE INFORMATION COLLECTED?

Planning tabulation and analysis methods in advance, and indicating on the evaluation plan what these will be, helps ensure that you have the information you need. This can also save time and possible uncertainty when data have been collected.

Tabulation

If information collection methods, as discussed in Step 5, have been well defined, methods to use for tabulation purposes should follow.

Use of a tabulation sheet simplifies compiling of information. For example, if questionnaires or similar devices have been employed, answers to all usable forced-answer questions can be consolidated on to one form by hand, or can be coded for computer tabulation. If observation checklists were used (see example on page 5-5), tabulation may involve simply totalling numbers in columns.

Tabulation of open-ended questions is more difficult. First select a method of categorizing answers. One approach is to list each answer to a question on a separate card; sort these into groups of related answers. Or if the number of respondents is large, select a sub-sample and sort their responses until a usable number of categories emerges. Then tabulate. Recording data in table form can facilitate analysis.

Analysis

It is not very often that data from the level of evaluation discussed in this guide are subject to statistical analysis. Such analysis can become quite involved, and requires specific expertise which frequently is not available.

Simple mathematical techniques of analysis can serve the purposes of such evaluations. For example:

- numerical counts: how many?
- percentages;

- frequency distributions - classification of answers into various groups or classes, arranged in order of size or magnitude;
- arithmetic mean, or average;
- mode, or answer, or value that occur most frequently;
- median, or value for which half of the responses fall below and half above, i.e. the middle value;
- ranking.

A statistically significant result may or may not be of educational or nutritional significance - the latter is certainly more important when conducting a 'do-it-yourself' type of evaluation. A decision on nutritional significance can often be made on the basis of professional judgment.

References included in the bibliography may be helpful.

STEP 7: WHAT RESOURCES ARE REQUIRED FOR THE EVALUATION?

By now you will have selected a project to evaluate, decided what you hope to achieve by the evaluation, defined the information required to conduct the evaluation, and selected methods of collecting that information.

Required Resources

The next step is to determine the resources required to carry out the evaluation as planned. It is important to estimate as accurately as possible all resources including:

1. your time;
2. other personnel required, their specific expertise and their time;
3. materials such as measuring instruments, record forms.....;
4. budget for the above;
5. support of administrators, other involved staff, project participants.....;
6. other resources (list those you consider necessary):

One resource too frequently taken for granted and not estimated realistically is time. One result can be an evaluation which demands more time than the nutritionist and other personnel are able or willing to give. Estimating in writing the total time required, in person-hours and/or staff weeks, specifically for evaluation, will help avoid such difficulties.

Required Versus Available Resources

After you have estimated the resources required for an evaluation, it will then be necessary to compare them with those actually available to you. Lack of a resource will probably necessitate revising the evaluation plan, since resources will affect, for example, the amount of information which can be collected, the method of collection, and information tabulation and analysis techniques.

To facilitate future planning as well as the interpretation and reporting of the evaluation, it is suggested that you document:

(a) before the evaluation, all resources required;

(b) during the evaluation, resources actually available;

(c) after the evaluation, resources used;

(d) during and after, any problems arising which pertain to evaluation resources (e.g. difficulties in acquiring resources as planned, unanticipated but necessary resources).

STEP 8: WHAT TYPES OF DECISIONS ARE POSSIBLE BASED ON INTERPRETATION OF EVALUATION FINDINGS?

The concept of decision-making based on evaluation findings was introduced in Step 2: Why is the Evaluation Being Undertaken? This present step, number 8, looks at interpreting evaluation findings and how such interpretation influences the decisions made.

Inter-pretation

Interpretation is a critical step in the project evaluation process. It is the stage at which one must decide what evaluation findings really mean. Yet too often little attention and time are given to interpreting results; or the opposite sometimes occurs and interpretation is overworked in an attempt to get more out of the data than it actually contains.

While it is generally not possible to plan the details of interpretation in advance, *it is possible to plan to set aside a block of undisturbed time for this purpose.*

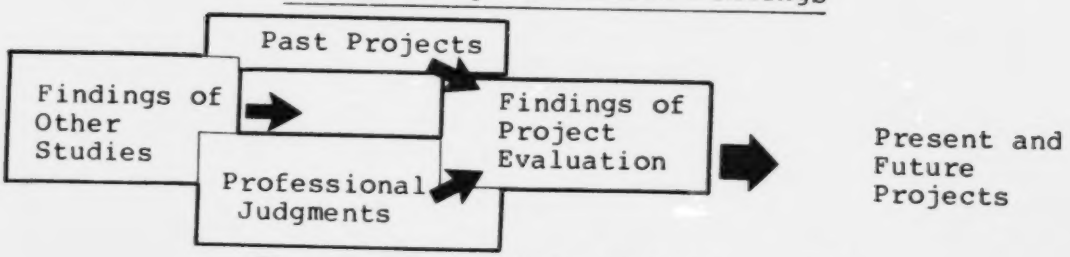
Interpretation involves:

- relating findings to the purpose of the evaluation (what do they mean in relation to the reason for deciding to conduct the evaluation in the first place?);
- inferring reasons for findings;
- seeking clues for project improvement;
- drawing conclusions which will lead to decision-making.

The interpretation of results of an evaluation will be more comprehensive, and more useful in present and future programming if findings are related to the past experiences of yourself and others, as illustrated in Figure 3.

Figure 3

Interpreting Evaluation Findings



The process of interpretation can be demanding. It requires logic, an open mind, professional judgment, perceptiveness gained through past experience, and an alertness to all factors[1] that may have influenced project outcomes, both planned and unplanned.

This may seem a difficult task, but it can be made easier if you:

- *search for patterns - compare;*
- *ask questions - what? who? why? when?*
- *jot down all possible interpretations that come to mind; analyze; retain only the plausible;*
- *discuss findings with others in the field of nutrition, and with professionals outside the field - they may see relationships that nutritionists overlook.*

Remember that "what appears to be is not always what really is".

When using the level of evaluation proposed in this Guide (before, during and after measures, not an experimental approach), it should be remembered that conclusions cannot be drawn about causal relationships. Nevertheless, one can infer the types of relationships which may exist between project components and the observed project outcomes. It is also important to consider possible effects of non-project factors[1] on changes which were observed.

[1]*These were discussed previously on page 4-1*

Controllable Versus Uncontrollable Factors

Some factors or variables influencing project outcomes are within your control, others are not. It is important to recognize and make this distinction. For example, you may decide that needs and/or characteristics of the target group had not been adequately identified and defined - improvement is possible in planning future projects for this group. Or, it may have been that project resources were inadequate - were these incorrectly estimated (under you control) or did management consider another project of higher priority and transfer resources to that project (not under control)? Attention should be drawn to such factors in the interpretation of findings, and in your record and report of the evaluation.

Interpretation of Findings of Ongoing Evaluation

If evaluation is being conducted as the program is in progress, it is particularly important that you interpret the findings quickly and accurately so that the program can be changed as necessary.

Decision Making

Evaluation is used to help you make decisions. Unfortunately, evaluation alone cannot tell you what these decisions should be. Ultimately the decisions you make will be based on your interpretation of evaluation findings and thus on your judgment.

However, you can feel more secure in your judgment because evaluation has provided you with concrete information and quantitative as well as qualitative data on which to form this judgment.

As with interpretation, the decisions made on the basis of evaluation findings will depend on the specific purpose of the evaluation, as well as on the types of decisions that are within your power to make. If you do not have the authority to make changes indicated by evaluation results, recommendations should be made to those who do have the authority.

STEP 9: WILL EVALUATION RESULTS BE REPORTED? TO WHOM? HOW?

To Whom?

Whether or not a report of the evaluation is made available to other staff, other nutritionists, management, and/or the public, will depend on several factors, one of which is the purpose for which the evaluation was originally undertaken.

Advantages of Reporting Findings

Some advantages to be gained from reporting your evaluation study and results are:

- evaluation can expand awareness of nutrition projects and programs, and increase the value placed on them and thus the support provided;
- an exchange of ideas and experiences concerning project evaluation can improve the quality of evaluation and the ease with which it can be done;
- evaluation reports can contribute to the building of a solid base of information about community nutrition programs necessary to the continued advancement of such programs.

What and How to Report

Great leeway is possible in deciding what to report and how to say it. Consider:

- the reason for reporting findings: clearly define what you hope to accomplish - be honest and realistic with yourself;
- the audience to whom the report is directed: present the evaluation report in a form that will be most useful to them, yet at the same time help you achieve your purpose. A summary of findings and decisions or recommendations only may be preferable, or you may wish to provide a more detailed report.

Your detailed report could follow a fairly standard technical report outline such as:

I. Summary.
II. Background Information on the Project.
III. Purpose of the Evaluation.

IV. Description of the Evaluation (including limitations).
V. Results.
VI. Discussion/Interpretation.
VII. Conclusions and Recommendations.

In section VII, you may find it useful to present the recommendations in order of priority and include conditions essential to their implementation.

One disadvantage of the above approach is that it tends to be 'dry' and suited to very few audiences. You, therefore, may decide to develop a more imaginative approach of your own.

Depending upon the audience and the situation, you may present your report either orally or in written form. Whichever you select, a variety of formats for presenting information will facilitate audience understanding. A good diversity includes narrative, graphs and charts, tables and diagrams.

When you sit down to write the report, well-kept records of the evaluation and the project, as suggested on page 4-4 will prove invaluable, readily available sources of information.

Further Reading on Report Writing

For more details on, and examples of, evaluation reports, you may wish to consult:

1. Byrn (ed.). Evaluation in Extension.

2. Morris and Fitz-Gibbon. Program Evaluation Kit - booklet entitled How to Present an Evaluation Report.

SUMMARY

This Guide has been prepared specifically for field use. It is designed to evaluate short-term projects, mainly for the purpose of improving the project. The text has been presented in a step-by-step manner to be as practical as possible. You are encouraged to use it as a 'personal notebook' for evaluation by changing or adding pages and ideas as desired.

The authors, the Federal-Provincial Subcommittee on Nutrition, and Nutrition Programs Unit of Health Promotion Directorate, Health and Welfare Canada, hope that you will find this Guide helpful and that the evaluation of projects will be a rewarding experience.

We suggest that having read through the Guide, you now pull out or make copies of the Evaluation Plan Working Form (Appendix A) and complete it for one of your own projects. The completed sample Plan in Appendix B is not 'perfect' - it simply shows how one group used the Evaluation Plan. Appendix C provides criteria which may assist you in assessing your Evaluation Plan.

AN EVALUATION PLAN WORKING FORM

PROJECT_____

Why this Project is Being Evaluated	Decisions Possible as Result of Evaluation of this Project
DESCRIPTION OF THE PROJECT	**Baseline Information on Existing Situation - Needs**
. Purpose or Overall Goal of Project: . Target Group: . Location: . Dates: . Content: . Materials/other resources:	

AN EVALUATION PLAN WORKING FORM (CONT'D)

DESCRIPTION OF THE PROJECT (Cont'd)		DESCRIPTION OF EVALUATION						
Project Objectives	Project Methods/ Approaches	Indicators for Measuring Achievement of Objectives	Source and Data Collection Methods	Sampling Method and Sample Size (if relevant)	When Will Data Be Collected	Who Will Collect the Data	Data Tabulation and Analysis Methods	Evaluation Resources Required Time

What are Some Possible UNPLANNED PROJECT EFFECTS (positive and negative)	Planned DISTRIBUTION of EVALUATION REPORT
List NON-PROJECT FACTORS Which Might Affect Outcome of This Project	Planner of Evaluation_____ Date_____

This is a sample only of how the Plan can be used; it is not intended as an "ideal" guide . Use will vary with needs of the target, resources, evaluation skills.....

AN EVALUATION PLAN

PROJECT: Workshop (Pilot Project) for Children's Day Care Centre Workers

Why this Project is Being Evaluated

- to determine how effective this type of workshop is in promoting the provincial nutrition education and food service guidelines among day care centres.
- to determine how the acceptability and effectiveness of this type of workshop can be improved.

DESCRIPTION OF THE PROJECT

Purpose or Overall Goal of Project:
- to conduct a workshop as a pilot project to increase use of provincial nutrition education and food service guidelines in day care centres.

Target Group: 6 children's day care centres. Each centre will be asked to send two workers.
Location: Health Unit office.
Dates: from January 20 to February 20.
Content:
- Interpretation of guidelines in terms of a) sensible snacks/meals; b) nutrition education experiences - suitable for preschoolers.

Materials/other resources:
- Guidelines, pamphlets, slides, films, posters; demonstration materials, e.g. food, activities; work assignment materials, paper, etc. Other resources - nurses, managers of day care centres.

Decisions Possible as Result of Evaluation of this Project

- Are workshops sufficiently effective with this group and can they be expanded to other day care centres?
- What changes in content/approach used in the workshop are needed?

Baseline Information on Existing Situation - Needs

- Day care workers in the region do not use provincial guidelines.
- Day care workers have no specific training in nutrition.
- Parents have expressed some concerns to Health Unit staff regarding food served at the centres.
- Day care workers appear receptive and have expressed interest in a workshop.
- During unannounced on-site visits by the nutritionist and nurses this past year:
  - only 3 of the 12 snacks observed being served (2 observations per centre) were acceptable as defined by provincial guidelines on snacks;
  - only 4 of the 12 meals observed (2 observations per centre) met the provincial guidelines for meals to be served in day care centres;
  - day care workers indicated they did not undertake nutrition education activities with the preschoolers.

DESCRIPTION OF THE PROJECT (Cont'd)		DESCRIPTION OF EVALUATION							
Project Objectives	Project Methods/ Approaches	Indicators for Measuring Achievement of Objectives	Source and Data Collection Methods	Sampling Method and Sample Size (if relevant)	When Will Data Be Collected	Who Will Collect the Data	Data Tabulation and Analysis Methods	Evaluation Resources Required	Hrs.
. Within 2 mos. of workshop, all 6 centres will serve at least 6 out of 12 snacks and 6 out of 12 meals -- which meet the provincial food service guidelines. . Within 2 mos. of Workshop, 80% have used 2 or more of the nutrition activities given at workshop. . At least 75% of participants will indicate that workshop has been beneficial to them.	. Series of three 2-hr. workshops with 2-week intervals in each of 6 centres. Combination of mini-lectures/demos, practical assignments by workers to be carried out during 2-week intervals, reporting back to group. . Monthly follow-up by nurses and nutrionists planned for alternate months to observe implementation of guidelines.	Attendance	Attendance sheets	All participants	During workshops	Nutritionist	Recorded on chart for each day care centre and assessed manually	Support of Nursing Director	1½
		Number of assignments completed	Completed assignment sheets	All participants	During workshops	Nutritionist	Data from follow-up visits added to charts for regular assessment	Support of day care centre managers	½
								Data tabulation charts and other tools	1½
		Personal feedback	Questionnaire completed Interview	All participants	At end of workshop	Nutritionist			
					5-month visit	Nutritionist		Nutritionist's time:	
								. contact nurses	6
		Meals served	Observations	All centres (6) and workshop participants (12)	1,3,5,7 months after workshop	1 and 5-month visits by nutritionist, 3 and 7-month visits by Public Health Nurse		. conduct workshop	3
								. tabulate/ analyze, interpret data	3
		Snacks served	Interviews	"	"				
		Nutrition education activities undertaken	Interviews	"	"			Nurses' time:	
								. contact nutritionist	6
							Number and % of centres meeting the food service and nutrition standards set in the objectives	. follow-up visits including travel	9

What are Some Possible UNPLANNED PROJECT EFFECTS (positive and negative)	Planned DISTRIBUTION of EVALUATION REPORT
. Participants do not have skills needed for assignments. . Requests for more in-depth consultation beyond staff capabilities. . Misinformation gained through cross discussions among participants. . Requests from all staff to attend. . Changes by staff in personal practices. . Increased defensiveness and deteriorating relationship with nutritionist. . Poor attendance by choice.	. Managers of day care centres. . Director of Nutrition Services. . Health Unit Director, Nursing Department.
List NON-PROJECT FACTORS Which Might Affect Outcome of This Project	Planner of Evaluation_____ Date_____
. Transfer of nurse or assignment to other duties. . Change in day care centre manager or in policy. . Illness of other staff - no replacements. . Limited facilities in centre to implement guidelines, e.g. equipment. . Budgetary restraints in centres. . Breakdown of transportation plans for participants. . Inclement weather.	

APPENDIX C CRITERIA FOR ASSESSING AN EVALUATION PLAN

The following criteria are provided to assist you in assessing an evaluation plan. If the intent of each criterion is not immediately clear, choose those criteria you are able to apply; using the remainder will become easier with practice.

Indicate how well each criterion was met:

3 is most positive rating - i.e. very strong, excellent choice, etc.
2 indicates adequate, but could be improved.
1 is lowest or most negative rating - very weak, poor choice, etc.

If you like using a more discriminating scale, you may wish to expand it to a 5-point instead of a 3-point rating. Or you may wish to limit it to a 'yes' or 'no' response.

Purpose of the evaluation

1. The purpose of evaluation is clearly stated. 1 2 3
2. The expected outcome of the evaluation is clear. 1 2 3
3. The plan states how evaluation results will be used and by whom. 1 2 3

Description of project

4. Objectives are stated in terms of who is to do what as a result of the project. 1 2 3
5. There is adequate information on:

..project content. 1 2 3
6. ..methods or approaches being used. 1 2 3
7. ..persons (target group and staff) taking part. 1 2 3

What is to be measured

8. The characteristics or components of the project to be evaluated are clearly indicated. 1 2 3
9. The choice of characteristics or components is appropriate to the purpose of evaluation. 1 2 3
10. The level of evaluation is appropriate to the purpose of the evaluation. 1 2 3
11. The proposed level of evaluation is realistic in terms of resources available. 1 2 3
12. The indicators, or evidence of achievement of objectives, are suited to the evaluation purpose. 1 2 3
13. Objectives are adequately covered by the outcomes to be measured. 1 2 3

14. The outcomes to be measured are stated in terms of observable, measurable behavior. 1 2 3
15. The standards or expected levels of achievement are realistic. 1 2 3
16. Factors which may bias judgment are considered. 1 2 3

Collection of Information

17. The number of participants from whom data will be collected comprises an adequate sample and uses resources efficiently. 1 2 3
18. The type(s) of instruments (questionnaire, checklist, etc.), seem(s) best for the purpose of evaluation. 1 2 3
19. The instrument makes best use of resources. 1 2 3
20. The instrument is appropriately and clearly worded and easy to use. 1 2 3
21. The plan for administering the instrument is well thought through... 1 2 3
22. Provision for maintaining objectivity is adequate. 1 2 3
23. Plans for obtaining comparative data (e.g. baseline data) to identify change are adequate. 1 2 3
24. The plan for data tabulation and analysis is efficient. 1 2 3

Evaluation Resources

25. Participants appear capable of providing the evaluation feedback required. 1 2 3
26. The limits of evaluation resources are realistically identified. 1 2 3
27. The potential use and value of evaluation results merit the resources required. 1 2 3

Other

28. The evaluation plan is the simplest one for the purpose. 1 2 3
29. The plan appears practical. 1 2 3
30. The plan for reporting appears appropriate. 1 2 3

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II. Evaluation in Extension Education
III. The Place of Evaluation in Extension
IV. The Scientific Approach and Extension Evaluation

The Evaluation Process
V. Goals and Objectives
VI. The Place of Teaching Plan Analysis in the Evaluation Process
VII. Evidence of Progress Toward Objectives
VIII. Identifying Problem Areas and Study Objectives
IX. Sources of Data
X. Sampling
XI. Methods of Collecting Data
XII. Interviewing
XIII. Devices for Collecting Data
XIV. Construction of an Evaluation Device
XV. Tabulation
XVI. Analysis and Interpretation
XVII. Preparing a Research or Study Report

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10. Selecting appropriate interviewers
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12. Structuring the interview situation
13. Sample surveys

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15. Nonverbal techniques

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